

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-4. (cancelled)

5. (currently amended) A method for operating an engine coupled to an exhaust system having a diesel particulate filter, where the exhaust system terminates at a tailpipe, the engine having an electronically controlled valve that adjusts oxygen flow entering the engine, the method comprising:

**commencing a self-sustaining filter regeneration;**

detecting temperature indicative of said diesel particulate filter;

controlling air flow via the valve based on said detected temperature so as to prevent temperature of the diesel particulate filter from rising to a point that causes degradation due to excessive exothermic reaction **by decreasing opening of the valve**, while continuing filter regeneration; and

continuously flowing all exhaust emitted from the tailpipe through the particulate filter.

6. (original) The method recited in Claim 5 wherein the valve is at least one of an electronically controlled throttle valve, an exhaust gas recirculation valve, a variable geometry turbocharger valve, a variable CAM timing valve, or a port deactivation valve.

7-9. (cancelled)

10. (previously presented) A system comprising:

a diesel engine having an exhaust system that terminates at a tailpipe;

an electronically controlled valve coupled to said engine;

a diesel particulate filter in said exhaust system coupled to said engine; and

a controller for commencing self-sustaining regeneration of said particulate filter, determining temperature of the filter, if said temperature is greater than a limit, adjusting said valve to reduce oxygen entering said filter and limit said self-sustaining regeneration reaction, and continuously flowing all exhaust emitted from the tailpipe through the particulate filter.

11. (original) The system recited in Claim 10 wherein said electronically controlled valve is at least one of an electronically controlled and pneumatically actuated throttle valve, an exhaust gas recirculation valve, a variable geometry turbocharger valve, a variable CAM timing valve, or a port deactivation valve.

12. (original) The system recited in Claim 10 wherein said controller commences said self-sustaining regeneration by adjusting engine operating parameters away from normal operating conditions to raise said temperature of the filter to a temperature necessary to initiate reaction, and then returning said engine operating parameters to said normal conditions.

13. (original) The system recited in Claim 10 wherein said diesel particulate filter comprises SiC.

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14. (original) The system recited in Claim 10 wherein said diesel particulate filter comprises cordierite.

15. (original) The system recited in Claim 10 wherein said controller limits said self-sustaining regeneration reaction by preventing temperature of said particulate filter from becoming greater than a predetermined value.

16. (new) A method for operating an engine coupled to an exhaust system having a diesel particulate filter, where the exhaust system terminates at a tailpipe, the engine having a first and second electronically controlled valves that adjust oxygen flow entering the engine, the method comprising:

commencing a self-sustaining filter regeneration;

detecting temperature indicative of said diesel particulate filter;

adjusting both the first and second valve based on said detected temperature so as to prevent temperature of the diesel particulate filter from rising to a point that causes degradation due to excessive exothermic reaction by decreasing excess oxygen, while still providing flow to carry away exhaust heat and continue filter regeneration; and

continuously flowing all exhaust emitted from the tailpipe through the particulate filter.

17. (new) The method of claim 16 wherein said first valve is a throttle valve, and said second valve is an exhaust gas recirculation valve.

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